

STATE LAND USE PLANNING ADVISORY COUNCIL

DRAFT

Minutes

October 14th, 2005

Meeting Location

Lyon County Commission Chambers
27 S. Main Street
Yerington, Nevada

Members Present (ten)

Roger Mancebo, Pershing County-Chair
Donald Tibbals, Lyon County
Vern Krahn, alt for Carson City
Glenn Bunch for Mineral County
Chuck Pulsipher for Clark County
Nancy Boland, Esmeralda County
Bill Whitney, Washoe County
Tom Fransway for Humboldt County
Mickey Yarbrow, Lander County
Michael Mears, Eureka County

Members Absent (seven)

Nye County
White Pine County
Churchill County
Douglas County
Elko County
Storey County
Lincoln County

Others Present

Pamela Wilcox, NV Division of State Lands, afternoon
Jim Lawrence, NV Division of State Lands, morning
Skip Canfield, AICP, Division of State Lands
Clinton Wertz, NV Division of State Lands
Kevin Hill, NV Division of State Lands
Phyllis Hunewill, Lyon County Commissioner
Paula Rosaschi- Lyon County Planning Commissioner
Cliff Thompson
Keith Trout- Mason Valley News
Joe Sawyer-NV DEP
David Fulstone

CALL TO ORDER

Chairperson Mancebo called the meeting to order at 8:15 am.

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DRAFT

Self-introductions were made by all audience and council members present.

Prior to approving the draft minutes for the May19th, 2005 SLUPAC meeting, **Chair Mancebo** asked if there were any proposed changes or comments. Staff Planner **Clint Wertz** stated the corrections had been submitted by **Sheri Eklund-Brown**. **Mr. Wertz** confirmed these changes and referred to the pink sheet included in the members packets that outlined the proposed changes (all were grammatical in nature) submitted by **Ms. Eklund- Brown**. One additional correction was provided by **Nancy Boland**. A motion was made to approve the minutes with changes, it was seconded by Ms. Boland and approved by an affirmative vote of all members present.

AGENCY REPORT

Pamela Wilcox, Administrator of the Division of State Lands gave an overview of the councils functions and stressed the importance of the body as a forum for discussion and exchange for land use planning issues. **Ms. Wilcox** introduced the new SLUPAC members and the audience by explaining the background of SLUPAC, when it was started and how it is the only council appointed by the Governor with one representative from each county. **Ms. Wilcox** welcomed everyone to the new state office building in Carson City (where the Department is located) and explained that DSL had moved in late August. She welcomed ideas and locations for the next SLUPAC meeting. **Ms. Wilcox** thanked all those present for attending.

Skip Canfield, Senior Planner, presented an update on his assistance role with regards to federal land management in Nevada.

- **Mr. Canfield** described his primary role as public lands planner for the state to ensure that both the state and counties have a local voice in decision making on federally managed lands in Nevada. Through applications received in the State Clearinghouse he commented on many proposed actions on public lands. He stressed the importance for counties to adopt and update public lands policy plan to ensure consultation by the Bureau of Land Management and the USDA Forest Service.
- **Mr. Canfield** summarized his recent completion of the public plan for federally administered Lands for Lander County and his work with local plan updates in Elko, White Pine, Eureka and most recently Esmeralda County. He has had ongoing meetings with various Public Land Use Advisory Councils (PLUACS).
- **Mr. Canfield** went on to describe his recent appointment to the Mohave Southern/Great Basin Resource Advisory Council, a BLM sponsored group to discuss public lands issues regionally.
- The agency has been participating in corridor studies of both US 50 and 395. **Mr. Canfield** emphasized the importance of regional planning efforts such as these to improve coordination in land use planning along these areas between counties. He also explained the potential planning impacts to Hwy. 50 jurisdictions when the USA Parkway route is complete between I-80 and Hwy. 50 at Silver Springs.

LEGISLATIVE UPDATE

Clint Wertz, Senior Planner for the State Land Use Planning Agency presented an overview of the new bills related to planning. He stated that the new "Laws Related to Planning" books would likely be available by late fall for distribution. In the interim he stated that a legislative update was posted on the agency website for review. Several of the bills were highlighted by **Mr. Wertz**.

- Several bills related to changes to open meeting laws
- A bill to increase penalties for and status of code enforcement violations.
- Broadens the authority of the Legislative Committee on Public Lands
- Changes to abandoned vehicle laws
- Changes to filing of tentative land division maps to Public Utility Commission
- Changes to limit the use eminent domain laws for redevelopment projects
- Clarifies limitations on the granting of continuances for applicants
- Require public land sales by public auction as opposed to sealed bids.
- Process by which county's can designate OHV connector roads to state OHV trails

Questions regarding the OHV bill arose after **Mr. Wertz's** discussion. **Mr. Canfield** explained that the OHV bill was designed for county's to clarify their routes on paved roadways for access to state OHV trails. Items discussed by the council members included; law enforcement of OHV uses, jurisdictional concerns on public lands, RS 2477 claims and how the bill would work on the ground.

Ms. Wilcox explained that while the legislation was not a green sticker program, it was one step in that direction. **Mr. Wertz** interjected that it only applied to paved roads that were 2 miles in length or less that could be used to access designated trailheads from communities.

LYON COUNTY GROWTH ISSUES

Pete Wysocki, City of Fernley, Director of Planning

Mr. Wysocki gave an overview of planning issues facing Nevada's newest city.

- Challenges in establishing a new department (in a new city)
- 165 square miles, influence over 1/3 of northern Lyon County
- Railroad checkerboard ownership issues
- Annexation with acquisition
- 1100 building permits for 2004
- Residential growth is primary (lacking in commercial services)

TAPE 1 SIDE B

Mr. Wysocki said with all the development the city has been aggressive at securing public open space areas through the subdivision process. He stated that housing choices have rapidly diversified and that commercial interest has been stimulated by all those moving to the country but expecting city amenities for shopping and services. **Mr. Wysocki** outlined the challenges faced by a small planning department in a new city. Staffing levels have increased from 3- 13 since inception. Offices have moved to a new city hall. The city has been updating its own master plan policies to reflect city needs rather than a town within a county. Incorporation was debated within

the city. Expectations for incorporation included; cleaning up downtown, control development with local residents/leaders input, address incompatible adjacent uses, determine rate of growth locally and to better address water and park issues.

Mr. Wysocki commented that a professional planner would view these issues and keep long range planning needs in mind when making short term decisions. Because of the rapid growth of the city he said that many long range improvements are made on a piecemeal basis through current planning actions. He stated his efforts at updating the development code, streamlining the permit process by having all departments located together and by being consistent in decision making. An example **Mr. Wysocki** gave of a challenging planning situation was the conflict areas between agricultural and residential uses where buffering provisions have been used between uses.

Mr. Wysocki mentioned that an updated master plan was going before city council in November for approval. Other issues presented included; allowing existing zoning for a transitional period of three years when it would expire, allowing for vested rights. A park plan was created for Fernley in 2002 with a Capitol Improvement Plan being eyed for the future. A water and sewer plan is being created to address water and waste water issues.

Water supply concerns face Fernley as other Nevada cities. **Mr. Wysocki** explained that in-lieu fees for water development did not work due to the escalating cost of rights.(costs at \$20-25K /acre ft. The city's current position is that the land proposed for development must come with adequate water rights. The city is also expanding a gray water line around town for landscaping and irrigation use.

Mr. Wysocki continued his discussion by saying that housing affordability is becoming a concern in Fernley with median housing prices hovering around \$200-300 thousand. He explained that there may soon be the need for a housing authority to ensure various needs of the housing market are met. Many in the area are concerned with maintaining the rural character of the area, both newcomers and natives alike. At the same time there is tremendous pressure on irrigated lands to be converted to residential. The current master plan does encourage planned unit development with the goal of maximizing open space throughout the city. Any open spaces are then deed restricted and maintained through maintenance districts.

Mr. Fransway asked how RTC funds were shared. **Mr. Wysocki** responded that is based on the number of miles of roads maintained. He also said that not all roads within the city are maintained.

Mr. Whitney inquired about the open space requirements for the PUD. **Mr. Wysocki** responded that is was 20% (improved or natural park areas.) In addition if there is adjacent agricultural there needs to be a 100 foot buffer and a tree replacement ratio for those removed.

Mr. Whitney further inquired if the lands included constrained lands for development. **Mr. Wysocki** replied they could be.

Mr. Lawrence asked if there had been resistance to impacts fees. **Mr. Wysocki** said that overall the idea had been accepted and that it did not stop developers either.

TAPE TWO SIDE A

Chairman Mancebo asked how the water rights are determined for development. **Mr. Wysocki** stated 1.12 ac/ft per dwelling was used and that all developers had to bring require water rights to the table.

Mr. Pulsipher asked if the infrastructure was keeping up with the growth. **Mr. Wysocki** responded yes and no. he gave a few comments to illustrate Fernley's approach thus far with development;

- Timing of infrastructure is very important
- Get necessary IF on the tentative maps
- They have had a 50% success rate so far for road requests
- Many facilities need to be overbuilt to accommodate future projected growth
- Facilitation is key to getting quality development
- Connection fees may be coming to Fernley

Mr. Canfield inquired how the mail out notification for the 3 year grace period for old zoning was conducted. He asked if they had split the zones and did the mailings in phases. **Mr. Wysocki** indicated they had done so.

Mr. Wysocki continues by saying that the transportation element for the city was inadequate and a draft revision was going to the city council on November 2nd for review. He also stressed the importance of educating the council and planning commissioners on the issues at hand to assist them in decision making.

Steven Hasson , Director of Planning, Lyon County

Mr. Hasson gave an overview on the growth challenges facing Lyon County.

- 2000 square miles 97X 55 miles
- Dayton area- 15,000 residents
- Fernley- 17,000 residents
- Silver Springs- 5000
- Recent 10 sq mile transfer from Washoe to Lyon (north of Fernley)
- Diverse views towards growth among county residents

He highlighted reasons for growth in Lyon County;

- Urban magnets (Reno)
- California proximity
- Baby boomers with equity
- Growth from July 03 – 40 K to July 05 – 50 K
- In-migration of 80% from CA

Mr. Hasson went on to say that Silver Springs is poised for great growth pressures. The runway is being lengthened to 9,000 linear feet which can accommodate commercial air service. The proposed extension of USA Parkway from I-80 and the Reno- Tahoe Industrial Park is in the planning stages. This will shorten the distance from Reno to Yerington by 28 miles and increase

the use of Silver Springs as a Reno bedroom community. He emphasized the biggest challenge for Lyon County was how to meet the different views and values held by the county.

New residential developments in the area include:

- Dayton – 2700 units
- Silver Springs – PUD
- Stage Coach- 6000 units

Mr. Hasson explained the county's current effort at a master plan update. The existing master dates to 1990 is not capable of addressing many of the diverse issues now facing the county. He said the county would be addressing all 18 elements. He stressed the importance of getting roads up front, need to preserve future corridors, provide directions for developers, and to address affordability issues for housing. He gave one example of a PUD where 139 units had been projected at \$275K but are expected to list for \$450-850K.

Mr. Yarbrow inquired about the water situation in Stagecoach and Silver Springs. **Mr. Hasson** stated it was tenuous and a lack of recharge due to pumping. He emphasized the importance of future water conservation or even possible importation. He felt there was a lot of water rights speculation occurring. The two most common questions asked by developers was where to get water rights and if there was an option of not providing the water for development.

Anaconda Mine Restoration and Re-use

Jim Sickles, Project Manager, Environmental Protection Agency,

Mr. Sickles opened the presentation by explaining his role and state role in the jurisdictional change of the mine clean-up at Anaconda. Since the site was determined to be of Superfund status the EPA assumed its regulatory role with NV DEP and BLM acting as supporting agencies. (part of the site is on BLM managed lands) He also stressed his discussion was to focus on the opportunities for re-use of the site and any related land use implications.

Mr. Sickles mentioned how the site was 5-6 square miles in size and that the level of restoration would be based on the types of future uses at the site. Mines have been re-claimed across the west for other uses (sometimes even additional mining operations) He said that the level of precipitation at a site has a big impact on how long the process might take. Therefore, the Yerington site will be a long term effort. A risk assessment process is used to determine the on site clean up needs.

He referenced the recent Oakland Port efforts where an asphalt cap was used to keep materials contained with the use of ground well monitors to check for off site migration of materials. He said the information need to start a restoration efforts included how the mine was used, identification of stakeholders, a site description, desires for re-use and what types of technology can be used to achieve the desired end result.

Mr. Sickles explained that cleanups vary from old gas stations to uranium mining. Each requires a specific approach. At Anaconda he stated the ownership pattern is split between the private and public, with BLM holding title to half the mine are to the north.

TAPE 2 SIDE B

Mr. Sickles explained the importance of gathering all the applicable regulations for the area.

- Zoning and existing area master plans
- Federal, state, tribal, local regulations impacting reuse
- Historical and cultural resources

He further commented on the importance of community input to any restoration effort. He summarized this concept as ;

- Future reuses that community members would support
- Future reuses that community members would oppose
- Cultural factors that may create barriers or assets to reuse

In terms of the clean-up, **Mr. Sickles** detailed the EPA needs to address applicable state law. In addition, they need to explore the various technological options for clean-up.

- Conventional Technologies
 - Treatment, Containment
- Innovative/Emerging Technologies
 - Bioremediation, Phytoremediation
- Institutional Controls

Mr. Sickles stated one method of clean up at Yerington was the Heap Leach pad method. It involves the re-contour surface of pad, addition of a soil cover, re-vegetate the soil cover and to manage effluent (liquids). He said in other cases insects are used to break down organics and in some places plants are used to draw materials from the soils.

Institutional controls are also used to Control actions or modify behaviors, enforcing restrictions on land use. Examples include:

- Restrict access
- Deed restrictions/Notices
- Zoning or other regulations
- Limited future development
- Health education programs

Mr. Sickles moved on to discuss the types of land use that may occur after restoration.

- | | |
|--|---|
| <ul style="list-style-type: none">• Agricultural<ul style="list-style-type: none">– Farmland and pastures– Irrigation• Commercial<ul style="list-style-type: none">– Industrial park– Lease buildings | <ul style="list-style-type: none">• Cultural<ul style="list-style-type: none">– Museum– Historical project• Ecological<ul style="list-style-type: none">– Wildlife preserve |
|--|---|

Mr. Sickles highlighted past re-uses of mines. These included residential infill development, recreational uses, commercial/industrial and even public facilities like energy plants.

Discussion arose regarding **Mr. Sickles** presentation.

Mr. Fransway of Humboldt County asked what it took to get a reclamation effort completed. **Mr. Sickles** responded that the site has to "clean" and that clean is determined by measuring levels of introduced materials from past uses. **Mr. Fransway** asked about the possibility of opening up a portion of a mine while restoration is ongoing. **Mr. Sickles** stated that when metal prices rise there is often a renewed interest in older mine sites. Several sites have been partially re-opened under this scheme. **Mr. Sickles** stated it can be challenging but as long as there is clear delineation for the proponent to understand its role for shut-down and cleanup the overall restoration can continue.

Mickey Yarbrow inquired about the length of use for any leach pads to be effective. **Mr. Sickles** said that they can remain in function for a long time providing they have good drainage. He stated there are 5 pads at Anaconda to dry and one pad is saturated. He also mentioned that weather patterns have an impact on the effectiveness of the pads. **Mr. Yarbrow** responded that many older pads were not designed well. **Mr. Sickles** said that for Anaconda a question exist regarding the uranium levels at the site as to whether or not they resulted from native levels or introduced quantities. He also said that liners can fail so the method is not fail proof. Some pits even lack liners to direct drainage.

Mr. Sickles presentation ended at 11:25.

Lyon County Water Issues

Tracy Taylor, Deputy State Engineer, NV Division of Water Resources

Mr. Taylor gave a brief water resources planning background for those in the audience. He explained the principles of Nevada Water Law and how the state engineers office is placed in the role of hearing water related issues.

The following program comments were presented to the group;

AN OVERVIEW OF THE WATER RESOURCE ISSUES IN LYON COUNTY, NEVADA

Presented by Tracy Taylor, P.E. Nevada Deputy State Engineer October 14, 2005
Yerington, Nevada

Water Law in Nevada Prior Appropriation Doctrine

- | | |
|--|--|
| ✓First in time, first in right, | ✓Use from lake/stream next to property |
| ✓Beneficial use is the limit of the water right, | ✓Can only use on land that is riparian |
| ✓Use it or lose it vs. Riparian Doctrine | ✓Natural flow vs. reasonable uses |

✓ Natural flow vs. artificial uses

APPROPRIATIONS

All water within the boundaries of the State belong to the public

- All Use of Non-Decreed Water Requires a Permit from the S.E. (except domestic wells)

—New Appropriations

—Changes of Existing or Decreed Rights

DUTIES OF THE STATE ENGINEER

- Appropriation (permit new uses and changes of existing uses)
- Distribution & Management of Water
- Well Drilling Regulations
- Subdivision Review (future development)
- Adjudication
- Water Right Ownership
- Water Planning
- Flood Plain Management
- Dam Safety
- Artificial Recharge
- Primary and Secondary Applications

Approving An Application

- 4 criteria
- Is water available from proposed source?
- Does it conflict with existing rights?
- Does the use prove detrimental to the public interest?
- Does it impact the protectible interest in domestic wells?
-

Perennial Yield

- Can be defined as the maximum amount of ground water than can be salvaged each year over the long term without depleting the ground water reservoir.
- USGS Recon and Bulletin Reports calculated perennials yields starting in the 1940's
-

DESIGNATED UNDERGROUND BASINS

- In order to manage the groundwater resources, the State Engineer may declare an underground basin as a "designated basin"
- Designating a basin enables the State Engineer to impose additional conditions and restrictions on water use
- A designated basin is not "closed", necessarily, to additional appropriations; However, preferred uses of water are imposed
- A water right permit is required to drill a well (other than domestic) in a designated basin.

MONITOR BASINS By GROUNDWATER PUMPAGE INVENTORY

- Purpose

- List existing permits
- Estimate yearly pumpage
- The pumpage is estimated by conducting an inventory of the wells in the valley and the associated permits issued by the State Engineer.
- The valley may be inventoried by sub-basin.
- Methods
 - field investigation of irrigated acres
 - meter readings
 - certificated appropriation amount.
- Use by individual domestic wells was estimated by applying an annual duty of 1.12 acre-feet which is equivalent to 1,000 gallons per day.

DAYTON VALLEY HYDROGRAPHIC AREA SUMMARY

•Hydrographic Area Number	8-103
•Designated	Yes
•State Engineer's Orders	
487 - Designation	January 22, 1973 688 – Extend Designation Area
August 23, 1977	
Committed Groundwater Resources	25,228 Acre-Feet
•Annual Recharge	12,525 Acre-Feet
•Reference	USGS WRIR 97-4123
•USGS Reconnaissance Report No. 59, 1975	9,445 Acre-Feet
•Groundwater Pumpage 2002	13,724 Acre-Feet
•Groundwater Pumpage 2003	11,431 Acre-Feet
•Groundwater Pumpage 2004	10,358 Acre-Feet

CHURCHILL VALLEY HYDROGRAPHIC AREA SUMMARY

•Hydrographic Area Number	8-102
•Designated	Yes
•State Engineer's Order	689
•Designation	August 23, 1977
•Committed Groundwater Resources	10,969 Acre-Feet
•Annual Recharge	1,600 Acre-Feet
•Reference	USGS Recon Report 59
•Groundwater Pumpage 2004	2,359 Acre-Feet

CHURCHILL VALLEY PUMPAGE BY MANNER OF USE WATER YEAR 2004 ACRE-FEET

• <u>2004</u>	
•Irrigation	374
•Municipal	769
•Recreation	37
•Domestic	1,098
•Mining/Ind	0

•Stock	53
•Commercial	28
•Total	2,359

SMITH VALLEY HYDROGRAPHIC AREA SUMMARY

•Hydrographic Area Number	09-107
•Designated	Yes
State Engineer's Orders	245
- Designation of Basin	Feb. 25,1960 253
- Measuring Devices	Aug. 2, 1961 1126
- Curtailment	Feb. 4, 1997 1159
- Water Meters Required	Feb. 1, 2000
Committed Groundwater Resources	58,344 Acre-Feet
•Annual Recharge	17,000 Acre-Feet
Source: USGS Bulletin No. 43	
•Groundwater Pumpage 2003	30,575 Acre-feet

MASON VALLEY HYDROGRAPHIC AREA SUMMARY

•Hydrographic Area Number	09-108
•Designated	Yes
State Engineer's Orders	627
- Designation of Basin	Jan. 1, 1977 691
- Amended Designation	Sept. 7, 1977 1125
- Curtailment	Feb. 4, 1997 1158
- Water Meters Required	Feb. 1, 2000
•Committed Groundwater Resources	154,246 Acre-Feet
•Annual Recharge	25,000 Acre-Feet
• Source: USGS Bulletin No. 38	
•Groundwater Pumpage 2003	101,033 Acre-feet

What are the options?

- Do nothing.
- Administer basins by priority date NRS 534.100 (6)
 "The State Engineer shall conduct investigations in any basin or portion thereof where it appears that the average annual replenishment to the ground water supply may not be adequate for the needs of all permittees and all vested-right claimants, and if his findings so indicate the State Engineer may order that withdrawals be restricted to conform with priority rights."

- Call for Proofs of Beneficial Use.

Tools

- Designate ground water basins
 - Preferred uses
 - Allows the State Engineer to impose additional conditions and restrictions on water use e.g. well depths, meters, sanitary seals
 - A water right permit is required to drill a well (other than domestic) in a designated basin.

- Forfeiture
- Grant changes of irrigation use for consumptive portion only.
- Permit Terms and S.E.'s Orders requiring meters on diversions.
- Substitutive uses in the case of mine dewatering.
- Exchange of treated effluent for potable water

Tools

- T-Finite Term
- Conjunctive Use through banking (TMWA)
- Recharge
- Request local water purveyors and governments to further restrict parceling and water dedication
- Monitor the Basins
 - Pumpage inventories
 - Groundwater level measurements
 - Public Input

What does administering the valley on a priority date basis mean?

In Dayton Valley, if groundwater pumping in the valley is limited to the annual yield of approximately 12,500 acre-feet, the annual duties of only 78 permits out of more than 240 could be satisfied.

Lyon County Groundwater Municipal Appropriations Dayton Valley, 08-103

Lyon County Utilities Municipal appropriations in acre-feet	9,028
Lyon County Utilities appropriations available if administered by priority date in acre-feet	4,515
Lyon County Utilities groundwater pumpage for calendar year 2004 as reported to the State Engineer in acre-feet	2,767

Litigation

- Walker River Decree
 - 1936
 - Adjudicated Walker River system in Nevada and California including reserved rights of the United States and Walker River Indian Reservation; however, did not include a water right for Weber Reservoir.
- United States, Walker River Paiute Tribe v. Walker River Irrigation District
 - Tribe seeks the right to store water in Weber Reservoir .
 - And an additional water right for up to 167,460 acres of land added to the Reservation in 1936.

Litigation

- United States counter claim
 - Federal Reserved water right for use of groundwater on the reservation

- Reserved rights for the benefit
- Yerington Paiute Tribe (acquired land)
- Bridgeport Paiute Indian Colony
- Individual allotments
- Hawthorne Army Ammunition Plant
- BLM
- Toiyabe National Forest
- United States Marine Corps

Other Litigation

- Intervention by Mineral County and Walker Lake Working Group
 - Seeks reallocation of Walker River to preserve minimum levels in Walker lake.
- 127,000 acre-feet additional annual flows
- Injunction sought 240,000 acre-feet until litigation is concluded
- Petition filed in Nevada Supreme Court
 - Public Trust obligations and prevent granting of additional surface and GW rights
 - Nevada Supreme Court denied petition because similar litigation is pending in proper court.

Litigation

- January 2003 the parties agreed to a mediation process.
 - Have an extension from court to complete mediation by December 2005.
- Parties represented at the Settlement Negotiations
- Walker River Irrigation District
 - United States
 - State of Nevada
 - State of California
 - Mono County, California
 - Lyon County, Nevada
 - Mineral County, Nevada
 - Walker River Paiute Indian Tribe
 - Walker Lake Working Group

End of **Mr. Taylor's** Program.

Mr. Fransway inquired with **Mr. Taylor** on the state position of interbasin transfers. Mr. Tracy stated that it is nothing new and they have been done since the development of Marlette Lake for water delivery. **Mr. Yarbrow** asked about the use it or lose it policy. **Mr. Taylor** responded that there have been forfeitures of water rights do to use inactivity of the resource. Mr., Yarbrow then asked what protection does a county have for groundwater not being used. **Mr. Taylor** replied that with municipal water this is not a problem.

Ms. Boland asked how appropriations are monitored. **Mr. Taylor** replied that it is challenging for the state, now there is a 5 year monitoring cycle in any given basin. He said there simply is not enough staff to do more. Ms. Boland then inquired about accessing a database (for public use) to

view permits and usage info. **Mr. Taylor** stated that division of water resources is working towards a web page with this information on it.

Mr. Whitney commented on his concern for yield and committed numbers shown in the presentation. **Mr. Taylor** stated that as old uses are converted to new uses there will need to be changes to the utilization of the resource.

Mr. Yarbro asked about current values for water rights. **Mr. Taylor** responded that they range any where from \$1000 to \$40,000 per acre /foot of water. He reiterated the price is what the market will bear. **Mr. Fransway** asked for confirmation regarding the use of waters of state being a public resource. **Mr. Taylor** responded yes.

LUNCH

Reconvened at 1:25

Walker River Basin Cloudseeding efforts

Arlen Huggins, Desert Research Institute

Mr. Huggins provided an overview of cloud seeding efforts in the great basin.
Cloud Seeding in the Walker Basin

Desert Research Institute

- Concepts in wintertime cloud seeding
- Seeding materials and methods
- Some results from past projects
- Some new results and evaluation methods
- The current Walker Basin project

Concepts for Cold Cloud Seeding

- Some part of nearly every storm contains cloud water (supercooled) that has not been converted to ice
- Presence of supercooled liquid determines seeding potential
- Ice-forming particles (nuclei) required to produce ice crystals in clouds
- Natural ice nuclei are less numerous at higher temperatures ($> -15^{\circ}\text{C}$)
- Artificial seeding either adds more ice nuclei or reduces the temperature so ice can form from supercooled cloud droplets
- Seeding must add a *significant* number of additional ice crystals
- Seeded ice crystals grow and fall as snow

Key Issues with Each Seeding Method

- Ground Seeding (AgI)
 - Transport and dispersion of AgI must be assessed
 - Generator positioning and spacing is critical
 - Winds/temperature determine AgI and ice trajectories
 - AgI must reach the right temperature ($< -5^{\circ}\text{C}$)
 - Forecast of optimum conditions not so critical

- 24/7 operations fairly easy
- Aircraft Seeding
 - Seeding can be done at the correct temperature
 - Flight tracks can be adjusted for targeting
 - Good seeding conditions (icing) also difficult flying conditions
 - Very difficult to optimize seeding time/location
 - Expense of covering large targets
 - 24/7 operations difficult

Recent Utah Propane Seeding Results

- Yielded a 25 percent increase in snowfall in seeded experimental units over those not seeded. Probability that this increase could have occurred by chance was < 5 percent.
- SLW and climatology suggest this increase over a typical Nov-Mar period would produce about 10% snow water content increase in target area
- Results reported in Super and Heimbach, 2005 J. Wea. Mod.

Newer Snow Enhancement Evaluation Methods

- Trace chemical analysis to detect silver and assess targeting
- Dual tracer (Ag and In) analysis to differentiate between nucleation and scavenging
- Correlation between Ag and snow density to assess water content increase
- Use of snow profiles to determine seeded snow layers and high resolution precip gauges to determine enhancement in snowfall

Walker Basin Project

- Eight ground generators
- One aircraft for 3-4 month period
- Main targets: Sweetwater Mtns, Sierra NV, Bodie Hills, Wassuk Mtns
- 20-30 seeding events per season
- Goal of at least 30,000 AF of augmented snow water
- At least double the number of ground generators needed for complete target coverage

Summary Points

- Physical experiments have shown the chain of events in cloud seeding processes
- Statistical evaluations have put confidence limits on enhancement to snowfall and runoff – consistent with physical measurements
- Newer chemical/physical methods can potentially evaluate projects over watershed-size areas
- Optimizing cloud seeding for a specific watershed is often a challenge
- Walker Basin currently has largest seeding network in the State program, but spacing still inadequate to cover all potential target regions

Additional Comments

- New projects in western states – WY
- Revived interest in Colorado River Basin snowpack augmentation project – WSWC and 7-Basin States group – USBR
- Congressional bills related to formation of Weather Modification Board and national research program (NOAA or USBR)
- California projects looking at their own research effort – improve existing programs

End of **Mr. Huggins** program

Mr. Whitney inquired if there was early season seeding last fall due to the moisture levels. **Mr. Huggins** replied yes. **Mr. Pulsipher** asked if there were upwind/downwind impacts from seeding. **Mr. Huggins** said that studies have shown a negligible effect. He said this was due to how and where storms can form.

Mr. Fulstone inquired about the costs of propane for seeding. **Mr. Huggins** responded that there is some additional cost to the technique but not much.

COUNTY PLANNING ISSUES

Mr. Mancebo asked for SLUPAC members to provide an update on their pertinent planning issues.

Mickey Yarbro- Lander County

- Hwy 305/Broad Street improvements are ongoing
- Sewer and water projects out to bid
- Estimated at \$750K low bid in at \$1.3 million
- Update on Battle Mtn Gold project
300 employees, 3 months of construction, 600 workers at peak
Rental Homes 30-40% empty
- New manufactured homes require a foundation in county
- Advertising for a new county planning director
- County protested recent water rights to BLM for fire

Michael Mears- Eureka County

- Mormon Crickets numbers are increasing 2X annually
- Public safety concerns (road slicks from crickets)
- Baiting and spraying seemed to help this year in specific locations
- Barrick mine is fully staffed, limited housing in Eureka
- City annexed 8 acres of buildable lands for residential
- There are negative attitudes in Eureka towards growth
- Molybdenum mine a possibility within 3-5 years, 300 employee potential
- Lack of Zoning is a problem, county will absorb development costs
- Newmont purchase of Horseshoe Ranch, 41,000 acres(plus all water/mineral rights)

NEW TAPE 4 SIDE A

Don Tibbals- Lyon County

- Lyon County faces diverse planning challenges from the north to the south.
- There is good community planning occurring in Smith Valley
- Issues with Dayton Valley Road and landscaping
- Need for additional access across Carson River in Dayton Valley
- 3000 lots spread out- one bridge
- Yerington has annexed 1000 acres
- Public water and sewer is limited beyond city

- Country Club/Golf Course improvements
- Silver Springs interest in airport from Fed Ex and UPS as a commercial air strip
- USA Parkway extension from I-80 will change east Lyon County

Chuck Pulsipher- Clark County

- County is developing new land use plans
- Utility and Transportation element updates
- Growth task Force moving along (Mixed use zones now a focus)
- Continued interest near Boulder Dam is spurring new development on the Arizona and there are expected to be growth impacts on the Nevada side (Boulder City) as a result
- Accessory dwelling ordinance being proposed
- Workforce housing is a big issue
- Drought measures could be made permanent
- Loss of 14K mobile homes is affordability concern
- Proposal for development (131,000 homes) is of concern
- An effort to counter recent Supreme Court Kelo decision is on the rise (would limit local govt ability to propose projects)

Roger Mancebo-Pershing County

- County is working on its federal lands bill (checkerboard, disposals etc)
- Much development interest in Lovelock
- 50 large wells applications were protested by county
- Master plan is finished- help with growth

Nancy Boland- Esmeralda County

- Two new subdivisions in Fish Lake Valley (5-120 acre lots, 100 lots)
- Nuisance abatement problems with trailer park across county line in Tonopah
- Possible airport development for Goldfield
- Continuing challenges with road maintenance

Bill Whitney, Washoe County

- The county is working on the sphere of influence project with Sparks and Storey County
- Challenges with rural planning efforts adjacent city annexation desires
- Regional planning on a larger scale is needed in the Reno area
- Flood control work in ongoing for east truckee meadows
- Acquisition was just completed for \$12.1 million of UNR land for 55 acres

Tom Fransway- Humboldt County

- County has had a good water year, 100% allocation of water rights
- Building permits are up in both city and county
- Housing starts have increased in county
- City has created an assessment district for 200 homes on the south side
- Q1 River walk project is ongoing, work to start again next spring
- New employer- utility trailers firm sells through Lowe's
- Airport business is good
- Federal Lands bill also underway

PUBLIC COMMENT

None

COUNCIL MEMBER COMMENTS

No further comments were made.

COUNCIL DISCUSSION AND RECOMMENDATIONS

There was no further discussion or recommendations made by the Council on any previous items that were presented.

FUTURE MEETING CONSIDERATIONS

There was interest in having a Southern Nevada meeting in Mid January. Topics of interest for a following included; Clark County Task Force Progress, SNPLMA status, other BLM RMP updates.

ADJOURN

The meeting was adjourned at 3:15 pm.

An informational site visit was conducted to the Anaconda Pit. SLUPAC members in attendance included; Chuck Pulsipher, Bill Whitney, and Don Tibbals as well as several staff members from the Division of State Lands. Three distinct locations were visited and Jim Sickles from the EPA explained the history and operations of the former mine. Both Art Gravenstein and Joe Sawyer from Nevada Division of Environmental Protection were on hand to answer questions as well. The site visit adjourned at 4:50pm.

Clint Wertz, Senior Planner
Meeting Recorder

These minutes should be considered draft minutes pending their approval at a future meeting of the State Land Use Planning Advisory Council. Corrections and changes could be made before approval.

The meeting was tape-recorded. Anyone wishing to listen to the tapes may call (775) 684-2731 for an appointment. The tapes will be retained for three years.